



RECEIVED

12 JUL 10 AM 8:03

PERMITS BRANCH  
6WQ-P

*Environmental Protection Division  
Water Quality & RCRA Group (ENV-RCRA)  
P.O. Box 1663, Mail Stop K490  
Los Alamos, New Mexico 87545  
(505) 667-0666*

Date: **JUL 02 2012**  
Refer To: ENV-RCRA-12-0136  
LAUR: 12-22162

Ms. Hannah Branning  
U.S. Environmental Protection Agency, Region 6  
Compliance and Assurance Division  
Water Enforcement Branch (6EN)  
1445 Ross Avenue, Suite 1200  
Dallas, Texas 75202-2733

Ms. Diana McDonald  
U.S. Environmental Protection Agency, Region 6  
Compliance and Assurance Division  
Water Enforcement Branch (6EN)  
1445 Ross Avenue, Suite 1200  
Dallas, Texas 75202-2733

Dear Ms. Branning and Ms. McDonald:

**SUBJECT: LOS ALAMOS NATIONAL LABORATORY, NPDES PERMIT NO. NM0028355  
AND NM0030759, EPA MEETING MINUTES, MAY 9, 2012**

On May 9, 2012 Mike Saladen and Terrill Lemke, Water Quality and RCRA (ENV-RCRA), Steve Veenis, Project Management Field Services (PMFS-DO), and Kate Lynnes, Regulatory Management (REG-DO), representing Los Alamos National Security, LLC (LANS) and Gene Turner from the U. S. Department of Energy (DOE) met with Isaac Chen, Diana McDonald, Everett Spencer, Hannah Branning and Cathy Bius of the U.S. Environmental Protection Agency (EPA), Region VI. LANS, DOE and EPA representatives met to discuss the LANS/DOE's National Pollutant Discharge Elimination System (NPDES) Permit Programs for NPDES Outfalls and Storm Water, NPDES Permit No. NM0028355 and NM0030759, respectively. Enclosed for your review and comment are the meeting minutes documenting our discussions (Enclosure 1).

LANS/DOE would like to thank EPA representatives for taking the time to meet with us on May 9th. Please do not hesitate to call me at (505) 665-6085 if you have questions or need additional information. Thanks for your assistance.

Ms. Hannah Branning and Ms. Diana McDonald - 2 -  
ENV-RCRA-12-0136

Please contact Mike Saladen at (505) 665-6085 or Terrill Lemke at (505) 665-2397 if you have questions regarding this report.

Sincerely,



Anthony R. Grieggs  
Group Leader  
Water Quality & RCRA Group (ENV-RCRA)

ARG:MS/lm

Enclosure: NPDES Permit No. NM0028355, EPA Meeting Minutes, May 9, 2012

Cy: Isaac, Chen, USEPA/Region 6, Dallas, TX, w/enc.,  
James Hogan, NMED/SWQB, Santa Fe, NM, w/enc.  
Gene E. Turner, LASO-EPO, w/enc., A316, (E-File)  
Carl A. Beard, PADOPS, w/o enc., A102  
Michael T. Brandt, ADESH, w/o enc., K491, (E-File)  
Alison M. Dorries, ENV-DO, w/o enc., K491, (E-File)  
Michael T. Saladen, ENV-RCRA, w/enc., K490, (E-File)  
Marc A. Bailey, ENV-RCRA, w/enc., K490, (E-File)  
Terrill W. Lemke, ENV-RCRA, w/enc., K490, (E-File)  
Steven. J. Veenis, PMFS-DO, w/enc., M997, (E-File)  
Kathryn D. Lynnes, REG-SP, w/enc., M992, (E-File)  
IRM-RMMSO File w/enc., A150, (F-File)  
ENV-RCRA Correspondence File, w/enc., K490

# ENCLOSURE 1

NPDES Permit No. NM0028355 and NM0030759 , EPA Meeting Minutes,  
May 9, 2012

ENV-RCRA-12-0136

LAUR-12-12- 22162

**JUL 02 2012**

Date: \_\_\_\_\_

[illegible]

## ENCLOSURE 1

ENV-RCRA-12-0136

LAUR-12-22162

NPDES Permit No. NM0028355, EPA Meeting Minutes, May 9, 2012

### **SUMMARY:**

Mike Saladen and Terrill Lemke, Water Quality and RCRA (ENV-RCRA), Steve Veenis, Project Management Field Services (PMFS-DO), and Kate Lynnes, Regulatory Management (REG-DO), representing Los Alamos National Security, LLC (LANS) and Gene Turner from the U. S. Department of Energy (DOE) met with Isaac Chen, Diana McDonald, Everett Spencer, Hannah Branning and Cathy Bius of the U.S. Environmental Protection Agency (EPA), Region VI on May 9, 2012. LANS, DOE and EPA representatives met to discuss the LANS/DOE's National Pollutant Discharge Elimination System (NPDES) Permit Programs for NPDES Outfalls and Storm Water, NPDES Permit No. NM0028355 and NM0030759, respectively.

### **NPDES OUTFALL PERMIT NO. NM0028355:**

Quarterly Progress Reports: The NPDES permit for the Los Alamos National Laboratory was issued on August 1, 2007. The permit requires the permittees (i.e. DOE/LANS) to submit to EPA and the New Mexico Environment Department (NMED) quarterly progress reports regarding the status of attainment of the water quality standards-based effluent limits. To date, the permittees have submitted nineteen progress reports. A copy of the most recent NPDES Quarterly Progress Report was submitted to EPA and NMED on January 28, 2012. During the May 9, 2012 meeting, the permittees and EPA reviewed the corrective actions completed to bring Laboratory facilities into compliance with more stringent effluent limits for pH, temperature, metals and PCBs. DOE/LANS divided its facilities into five stand alone projects (groups). A summary of corrective actions for each group is provided below:

#### **Group 1:**

- Sanitary Reclamation Recycling Facility (SERF)/TA-46 Sanitary Wastewater System (SWWS), Outfall 001/Outfall 13S: In July 2011, DOE/LANS began construction on an expansion of the SERF. The expansion includes the addition a new 3,000 square foot building. The building includes three new micro filter treatment units; three new reverse osmosis (RO) treatment units; new process tanks; and, a new 400,000 gallon blended water storage tank. Once the SERF expansion is completed in June 2012, the SERF will be capable of producing blended water for reuse by cooling towers at approximately 300 gallons per minute (gpm), a significant increase over the current production rate of approximately 100 gpm. In order to accommodate the increase in RO reject discharges from the expanded SERF, the capacity of the SERF evaporation basins on Sigma Mesa are also being increased. Two additional evaporation basins are being constructed adjacent to the existing basins. The new basins' design followed that of the existing basins. Adding two new basins will approximately double the current capacity. The

## ENCLOSURE 1

ENV-RCRA-12-0136

LAUR-12-22162

NPDES Permit No. NM0028355, EPA Meeting Minutes, May 9, 2012

estimated schedule date for construction completion for the expanded SERF is July 2012.

- TA-3 Power Plant, Outfall 001: The boiler blow-down was re-plumbed to the TA-46 SWWS Plant. The Power Plant has limited generation to ensure discharges meet temperature limits. Modifications necessary to cool water below discharge limits are in place. On March 31, 2012 – April 1, 2012 a bypass line and associated valves were installed to route treated SWWS effluent directly to Outfall 001 and temporarily bypass the TA-3 Re-Use Tank. This bypass system will allow for the Re-Use Tank to be emptied and cleaned on a routine basis.
- Strategic Computing Complex (SCC) and the Laboratory Data Communication Center (LDCC) Cooling Towers, (03A027 and 03A199, respectively): The SCC and LDCC cooling tower outfalls do not have metals or PCB compliance issues. However, treated SERF water will be used in the cooling towers at a future date. The outfalls will eventually have a decrease in flow through the outfall(s) when SERF water is used. The cooling towers may have to continue to discharge at a specified flow, to be determined in the future, to maintain the wetlands in Sandia canyon. Wetlands enhancement activities have been scheduled under a Dredge and Fill 404 permit to stabilize the wetlands and to address the future low flow conditions. Ms. Lynnes explained that the stability of this wetland is key to chromium corrective action activities for Sandia Canyon under the Consent Order.

### Group 2:

- Radioactive Liquid Waste Treatment Facility (RLWTF), Outfall 051: On March 2, 2010 DOE/LANS submitted the Final Report on Toxicity Reduction Evaluation (TRE) activities at RLWTF for failed whole effluent toxicity (WET) tests. The permittees previously submitted the TRE Action Plan and Schedule on January 31, 2008 and provided quarterly status reports to EPA. Based on EPA guidance, the permittees continued working with EPA staff to develop a protocol for “hardness” to be restored to the WET tests performed on operational or compliance aqueous samples from the RLWTF. EPA approved the corrective actions on June 21, 2011. Gene Turner provided EPA representatives with information regarding RLWTF, site conditions (no mixing zone), the Daphnia Pulex Toxicity study, and an overview of WET testing results without hardness addition and toxicity results from the bioassays after hardness addition. To date, the addition of hardness has resulted in complete survival of Daphnia Pulex in eight bioassays. Toxicity is substantially reduced or eliminated. There are five more bioassays planned. Upon completion of the study, DOE/LANS will request EPA to allow the

## ENCLOSURE 1

ENV-RCRA-12-0136

LAUR-12-22162

NPDES Permit No. NM0028355, EPA Meeting Minutes, May 9, 2012

RLWTF to restore "hardness" to the natural concentrations in LANL tap water (at 50 mg/l) as part of the treatment process in permit renewal.

- TA-55 Cooling Towers, Outfall 03A181: Design work to tie in the cooling tower effluent to the SWWS or SERF cross country line is underway.
- TA-35 National High Magnetic Field Laboratory (NHMFL) Cooling Tower, Outfall 03A160: An ion exchange system has been installed and the system is treating water. Effluent water samples have been taken and analysis indicates the effluent is below permitted discharge limits. The metals interim measure is considered complete. NHMFL is currently evaluating a strategy to eliminate the blow-down discharge to the environment, by connecting the cooling tower to the SWWS facility.

### Group 3:

- TA-53 Los Alamos Neutron Science Center (LANSCE) Cooling Tower, Outfall 03A048: An alternatives analysis for a final remedy solution to eliminate discharges at LANSCE was completed on July 23, 2010. At this time, there is no funding available to proceed.

### Group 4:

- Chemistry and Metallurgy Research (CMR) Air Washers, Outfall 03A021: The final remedy for the CMR is complete. EPA officially deleted NPDES Outfall 03A021 from the DOE/LANS permit on October 11, 2011.
- Sigma/Beryllium Test Facility Cooling Towers, Outfall 03A022: An ion exchange (IX) treatment system had been treating blow-down from the TA-3 Sigma/Beryllium Test Facility's cooling tower since July 2010. This interim measure was implemented to address the new copper effluent limit at NPDES Outfall 03A022 which became effective on August 1, 2010. As documented in the Permittee's October 2011 NPDES quarterly report, the long term solution was to connect the cooling tower blow-down to the SWWS Plant. The IX treatment system will be removed but the holding tanks will remain in place. Future discharges at Outfall 03A022 will be limited to once through cooling that may be needed to address off-normal conditions at the facility requiring emergency cooling. In the out years, the Sigma facility will initiate a feasibility study for the replacement and/or modification of existing cooling tower to increase efficiency. On December 6, 2011, DOE/LANS notified EPA that the cooling tower blow-down from NPDES Outfall 03A022 was connected to the SWWS Plant.

## ENCLOSURE 1

ENV-RCRA-12-0136

LAUR-12-22162

NPDES Permit No. NM0028355, EPA Meeting Minutes, May 9, 2012

### Group 5:

- TA-15 Dual-Axis Radiographic Hydrodynamic Test (DARHT) Cooling Tower/Septic Effluent, Outfall 03A185: The DARHT cooling tower and facility septic system were connected to the TA-46 SWWS collection system. EPA officially deleted NPDES Outfall 03A185 from the DOE/LANS permit on October 11, 2011.

### Other Activities:

- TA-11 Cooling Tower, Outfall 03A130: The project was completed on April 30, 2010. EPA officially deleted NPDES Outfall 03A130 from the DOE/LANS permit on October 11, 2011.
- NPDES Re-Application: The current NPDES permit issued to DOE/LANS became effective August 1, 2007 and will expire July 31, 2012. The permittees were required to submit a new application 180 days prior to expiration of the existing permit. DOE/LANS submitted the NPDES Re-Application to EPA and NMED on February 2, 2012. As noted in the DOE/LANS re-application, the permittees continue to eliminate outfalls and reduce effluent discharges to the environment. DOE/LANS requested the elimination of NPDES Outfalls 02A129, 03A021, 03A130, and 03A185 from the NPDES permit on October 11, 2011. Therefore, only eleven outfalls will remain in the permit when it is re-issued.

Based on the proposed SERF Expansion Project, DOE/LANS may significantly reduce flows at Outfalls 001, 03A027 and potentially 03A199 by recycling treated effluent. Additionally, Outfalls 03A022, 03A160, 05A055, 13S, and 051 have the potential to become no-flow outfalls but DOE/LANS requests that these outfalls remain in the NPDES permit.

Supplemental data was provided for Outfall 03A160 because it was not available at the time the re-application was submitted. Mr. Saladen indicated that there were no data provided or available for Outfalls 051 and 05A055 because they have not discharged in years. Mr. Chen requested the data from the RLWTF bioassays be provided to him. He also requested that the remaining five bioassays be characterized for metals and cyanide after they have hardness addition. Mr. Chen will use this data for running the reasonable potential effluent calculations.




## ENCLOSURE 1

ENV-RCRA-12-0136

LAUR-12-22162

NPDES Permit No. NM0028355, EPA Meeting Minutes, May 9, 2012



Lastly, DOE/LANS requested EPA consider moving the 13S outfall location from after the chlorine contact chamber to the flow measuring device in Canada del Buey. With the addition of SERF, tertiary treatment of sanitary effluent is required to meet the new PCBs effluent limit by July 31, 2012. Outfall 13S will become a no flow outfall unless discharge is made directly to Canada del Buey. Secondary treatment effluent limits could be applied to Outfall 001 and other outfalls using the SERF treated effluent.

Zero Liquid Discharge (ZLD) Tanks Project: The permittees have completed numerous changes at the RLWTF to comply with the very stringent zinc and copper limits. The RLWTF is currently constructing new concrete evaporation tanks at Technical Area 52 to receive fully treated radioactive liquid effluent from RLWTF. These tanks are being constructed to reduce the volume of treated effluent being discharged through NPDES Outfall 051. The construction will also allow for passive evaporation of treated RLWTF effluent. DOE/LANS submitted a Notice of Planned Change to EPA in May 2007 regarding the construction of the ZLD Tanks. Estimated schedule date for construction completion for the ZLD Tanks is the summer of 2012.

Carbon Filter Units in Water Canyon – Aluminum issue: DOE/LANS withdrew the NPDES permit application for these discharges on November 7, 2011. DOE/LANS are currently reviewing and evaluating other remedial alternatives. DOE/LANS requested closure of the permit process for this project.

PCB Method 1668: As part of the NPDES Re-Application process discussions, Gene Turner discussed the results of the Method 1668A Interlaboratory Validation Study Report dated March 2010. The report describes the interlaboratory validation study conducted in 2003-2004 on municipal wastewater, biosolids, and fish tissue matrices. Fourteen laboratories participated in the study. Eleven laboratories submitted data to EPA, however, only six laboratories submitted data deemed usable by EPA for wastewater, six laboratories submitted data deemed usable for tissue, and four submitted data sets deemed usable for biosolids. Only four laboratories submitted data deemed usable by EPA for all three matrices.

According to Federal Register: September 23, 2010 (Volume 75, Number 184), EPA proposed the addition of test methods (including EPA 1668C) to be authorized under 40 CFR §136 to ensure compliance with NPDES permits. Fourteen parties that commented cited quality control concerns and urged that Method 1668C not be promulgated. Three comments received by EPA stated that they were in favor of adopting the method. Around April 2011, EPA removed the method from the Method Update Rule.

Based on the study, there are considerable uncertainties inherent in the method. To date, EPA has not addressed concerns with the method expressed by the regulated community sufficiently

## ENCLOSURE 1

ENV-RCRA-12-0136

LAUR-12-22162

NPDES Permit No. NM0028355, EPA Meeting Minutes, May 9, 2012

to incorporate it into 40 CFR §136. Therefore, DOE/LANS are requesting that use of the method not be a requirement in future DOE/LANS permit renewals. DOE/LANS also stated that if NMED seeks to include this method in future permit renewals that the Laboratory will appeal to the New Mexico WQCC. Mr. Turner and Mr. Saladen also mentioned the soon to be issued PCB background report. They described how we found PCBs in storm water everywhere, including Sandia Peak snowmelt.

### **STORM WATER PERMIT NO. NM0030759:**

Red text indicates permittee's understanding of the answers provided by EPA during the meeting.

#### **Status of LANL Storm Water Permits:**

- Construction General Permit (CGP)

A summary of the LANL CGP program was provided including the current number of permitted sites and an update on the progress of transitioning to the new CGP. LANL stated that they were on track to complete all NOI submissions by the May 16, 2012 deadline. Ms. Diana McDonald, EPA, mentioned that she thought NMED may be modifying their current state certification language. She stated that she would check with Rich Powell (NMED SWQB) about a new certification.

- Multi-Sector General Permit (MSGP)

A summary of the LANL MSGP program was provided including the current number of permitted facilities within LANL and the applicable sectors. LANL also stated that due to current activities many constituents, including most of the impaired water constituents, have been eliminated from future storm water monitoring requirements, and that several sites have reached a "no exposure" status.

- Individual Storm Water Permit (IP)

A summary of recent activities associated with the LANL IP was provided identifying completion of initial confirmation monitoring periods, initiation of Corrective Action at some sites, continuation of confirmation monitoring at some sites, and completion and submittal of the Annual Report, Compliance Status Reports and annual SDPPP update.

#### **Individual Permit Items:**

- Potential "No Exposure" Sites



## ENCLOSURE 1

ENV-RCRA-12-0136

LAUR-12-22162

NPDES Permit No. NM0028355, EPA Meeting Minutes, May 9, 2012

- Review of proposed documentation
- Discussion of submittal and review and approval process

The process for preparation of information, submittal to EPA, and approval/disapproval actions and activities was outlined and presented. This was based on a March 2011 meeting with EPA personnel and EPA's concurrence to base the process on the MSGP format. A proposed sample "No Exposure" document package was provided for discussion and the type of information to be provided in the respective sections was discussed. Initial discussion focused on clarifying the difference between the "no exposure" designation in I.E.5(b) and "eliminating exposure" which is the corrective action pathway defined in E.1(b). After discussing the intent of the no exposure pathway (significant industrial materials are protected from exposure to storm water, including rain, snow, snowmelt and/or runoff) and how the soil data collected under the Consent Order could be used to make this demonstration, Mr. Chen requested that the "significant industrial material" discussion be placed in the proposed "no exposure" designation summaries. Ms. Lynnes explained that it was already in there. EPA personnel suggested that a list of POCs be included in the document to support identification of why the site was included in the IP. They additionally suggested clearly identifying what was there (original condition) versus what is there now (current condition), and including any applicable data, particularly any runoff data. LANL inquired about whom at EPA would review and approve/disapprove the document submittals. EPA personnel identified that submittals should be sent to Mr. Chen. Mr. Chen stated that he did not have time this summer to review any submittals and suggested that LANL work with NMED SWQB as the IP provides this allowance. LANL is to copy NMED SWQB on any submittals to EPA.

- Certification of installation of Corrective Action control measures
  - Review of proposed certification documentation

LANL presented a draft sample certification package and discussed the proposed information and content. EPA personnel had no issues or concerns with the content or format.

- Site & SMA modifications resulting from Corrective Action
  - Potential sampler moves and changes to SMA sizes and configurations
  - Correlation with Part I, D.2 requirements and potential impacts to Appendix A
  - Criteria for permit modifications



## ENCLOSURE 1

ENV-RCRA-12-0136

LAUR-12-22162

NPDES Permit No. NM0028355, EPA Meeting Minutes, May 9, 2012

It was presented by LANL personnel that current and future Corrective Action activities could potentially result in minor changes to SMA drainage patterns and/or changes in the size and shape of SMAs. Photos and graphics were used to show potential scenarios. LANL stated that since these scenarios did not constitute an SMA relocation, as is referenced in Part I, D.2 of the IP, such changes in sampler locations and SMA configurations would be identified in the Annual Report and the SDPPP update. LANL would request a minor permit modification for movement of an SMA. Mr. Chen had some uncertainties about the scope of the "permit modification" referenced in Part I, D.2. During the meeting he attempted to contact Ms. Renea Ryland, EPA legal counsel, for clarification as she was involved in the development of the language in this section of the Permit. Ms. Ryland was not available so Mr. Chen stated that he would contact her at a later time to provide LANL with clarification on the circumstances associated with requesting a permit modification.

- SWMU boundary changes
  - Process for notification
  - Requirements associated with potential sampler moves and SMA changes

LANL provided an overview and summary of the types of potential Site boundary changes and briefly discussed the reasons and process for boundary changes. LANL stated that some boundary changes have been made and that such changes would be identified in the Annual Report and the SDPPP update, but that since Site boundary changes are not specifically identified in the IP additional clarification was being sought. It was agreed that this was related to the clarification Mr. Chen was to acquire on "permit modification" associated sampler moves or SMA configuration changes. Mr. Chen additionally asked for a list of Sites that have had boundary changes, a brief justification for the change, and maps showing the differences in site boundaries. Mr. Chen also asked if LANL defined nature and extent of soil contamination under the Consent Order in circumstances where the SWMU boundary was limited to a small area such as an outfall. Ms. Lynnes replied that LANL was required to define nature and extent of any SWMU release to residential screening levels or background.

- Monitoring and soil disturbance
  - Discussion and clarification on Part I, E.5(a)

Part I, E.5(a) of the IP addresses soil disturbance at a Site and the need to reanalyze all POCs at the Site. LANL stated that soil disturbance was being defined per the CGP per previous concurrence with EPA (March 2011) and that soil disturbance was occurring upstream or downstream of a Site, within an SMA, but outside the Site. As the soil



## ENCLOSURE 1

ENV-RCRA-12-0136

LAUR-12-22162

NPDES Permit No. NM0028355, EPA Meeting Minutes, May 9, 2012

disturbance was not within a Site, this activity would not require reanalyzing all POCs. EPA personnel concurred with this interpretation. Mr. Chen additionally stated that if the installation of the control measure was within the boundary of a SWMU or AOC that this would be a soil disturbance under Part I, E.5(a).

- Permit clarifications

- TAL exceedance notifications - verbal or email notification

LANL personnel stated that notifications on previous TAL exceedances were made via voice mail using the phone number listed on EPA's website for such notifications. EPA personnel stated that they had internal problems with this system and that the EPA personnel responsible for the LANL IP were not receiving the voice mail information. EPA requested that future notifications be made via email to Ms. Hannah Branning and Ms. Diana McDonald. LANL agreed to forward to EPA the TAL exceedance notifications previously sent to NMED.

- SDPPP annual update deadline - clarification of Part I, F.4

EPA personnel clarified that the deadline for the annual SDPPP update was May 1 of each year.

- Expiration date

LANL inquired about the 2014 expiration date listed on the cover page of the Permit and its relation to the deadlines extending beyond 2014. EPA stated that the IP would be administratively continued until the 2015, or later, deadlines listed in the Permit could be met. It was stated that LANL could ask for a letter from EPA on the continuance closer to the 2014 expiration date.

- Potential transition back to MSGP

Transition back to MSGP coverage following expiration of the IP was briefly discussed. EPA stated that this was a possibility and that it would be LANL's responsibility to request appropriate permit coverage through a permit application. It was agreed that this issue could be additionally discussed at a later date.

- NMED Compliance Enforcement Inspection

- Overview findings

- LANL response status

LANL provided a brief overview of the types of comments and findings listed in the inspection report. There were a number of questions/comments on representative

## ENCLOSURE 1

ENV-RCRA-12-0136

LAUR-12-22162

NPDES Permit No. NM0028355, EPA Meeting Minutes, May 9, 2012

sampling and the constituents being sampled for, and the recommended action from the NMED personnel conducting the inspection was to coordinate with the EPA permit writer. LANL inquired if additional coordination or follow-up with the permit writer was required. EPA personnel stated that no additional action by LANL was needed. EPA personnel also stated that there were no "unsatisfactory" findings identified in the inspection report. LANL personnel stated that a formal response to the report was currently being developed for future delivery to EPA.

**NetDMR** – Presentation by Cathy Bius and Hannah Branning